



circuit breaker 3VA6 UL frame 150 breaking capacity class H 65kA @ 480V 4-pole, line protection ETU560, LSIG, $I_n=40A$ overload protection $I_r=16A...40A$ short-circuit protection $I_{sd}=0.6..10x I_n$, $I_i=1.5..12x I_n$ N conductor protection adjustable (OFF, up to 160%) ground-fault protection $I_g=0.375...1 x I_n=$ $t_g=0.05-0.8s$ without connection

Model	
Product brand name	SENTRON
Product designation	Molded-case circuit breaker
Product designation / according to UL file	HDAE
Product version	System protection
Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	ETU560
protection function of the overcurrent release	LSIG
Number of poles	4
General technical data	
Rated insulation voltage U_i	600 V
Max. rated operational voltage U_e with AC 50/60Hz	600 V
Power loss [W] / maximum	2.4 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	0.8 W
Mechanical service life (switching cycles) / typical	20 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	9 000
Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz	5 000
Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz	9 000
Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz	9 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Summation current formation L + N-conductor
Product function	
• communication function	Yes
• other measurement function	No

Current

Marking / acc. to UL 489 / 100%-rated breaker	No
Max. rated operational current of the frame size	150 A
Rated continuous current I _u	40 A
Operating current	
• at 40 °C	40 A
• at 45 °C	40 A
• at 50 °C	40 A
• at 55 °C	40 A
• at 60 °C	40 A
• at 65 °C	40 A
• at 70 °C	40 A

Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	H
Maximum short-circuit current breaking capacity (I _{cu})	
• at 240 V	110 kA
• at 415 V	85 kA
• at 690 V	2.5 kA
Operational short-circuit current breaking capacity (I _{cs})	
• at 240 V	110 kA
• at 415 V	85 kA
• at 690 V	2.5 kA
Short-circuit current making capacity (I _{cm})	
• at 240 V	242 kA
• at 415 V	187 kA
• at 690 V	3.8 kA

Switching capacity according to UL 489

Breaking capacity current	
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• at 240 V	100 kA
• at 480 V	65 kA
• at 600 V	22 kA

Adjustable parameters

Adjustable response value current / I _g min.	16 A
Adjustable response value current / I _g min.	40 A
Adjustable response value time / t _r min.	0.5
Adjustable response value time / t _r max.	25
Adjustable response value current / I _g min.	24 A
Adjustable response value current / I _g min.	400 A
Adjustable response value time / t _{sd} min.	0.05 s
Adjustable response value time / t _{sd} max.	0.5 s
Adjustable response value time / t _{sd} min.	0.05 s
Adjustable response value time / t _{sd} max.	0.5 s
Adjustable response value current / I _i min.	60 A
Adjustable response value current / I _i max.	480 A
Ground fault protection can be switched ON/OFF	Yes
Ground fault protection / tripping switchable / I _{2t} =ON/OFF	Yes
Adjustable response value current / I _g min.	15 A
Adjustable response value current / I _g max.	40 A
Adjustable response value current / t _g min.	0.05 s
Adjustable response value current / t _g max.	0.8 s

Mechanical Design

Height [in]	7.8 in
Height	198 mm
Width [in]	5.5 in
Width	140 mm
Depth [in]	3.4 in
Depth	86 mm

Connections

Arrangement of electrical connectors / for main current circuit	Without connection
Type of electrical connection / for main current circuit	Without

Auxiliary circuit

Number of CO contacts / for auxiliary contacts	0
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Accessories

Product extension / optional / motor drive	Yes
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Environmental conditions

Protection class IP / on the front	IP40
Ambient temperature	

- during operation / minimum -25 °C
- during operation / maximum 70 °C
- during storage / minimum -40 °C
- during storage / maximum 80 °C

Certificates

Reference code / acc. to DIN EN 81346-2	Q
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	Yes

General Product Approval



General Product Approval	EMC	Declaration of Conformity	Shipping Approval	other
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[Miscellaneous](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6140-6JQ41-0AA0>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6140-6JQ41-0AA0>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

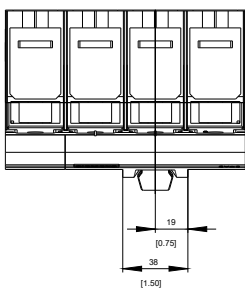
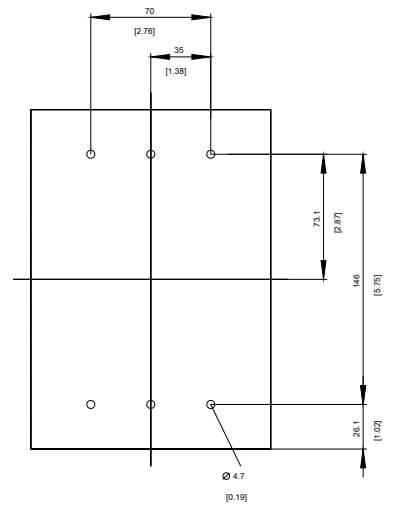
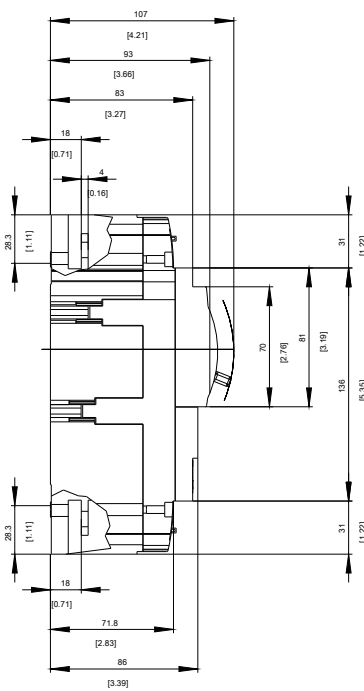
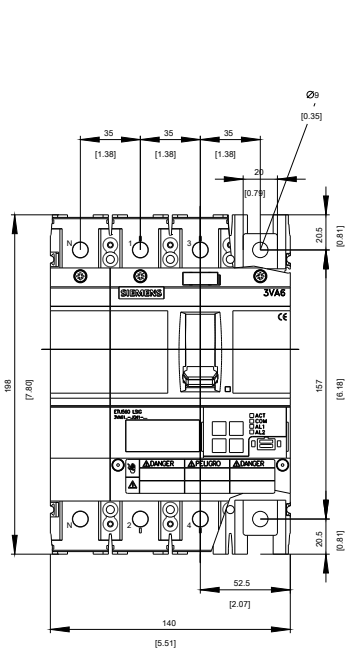
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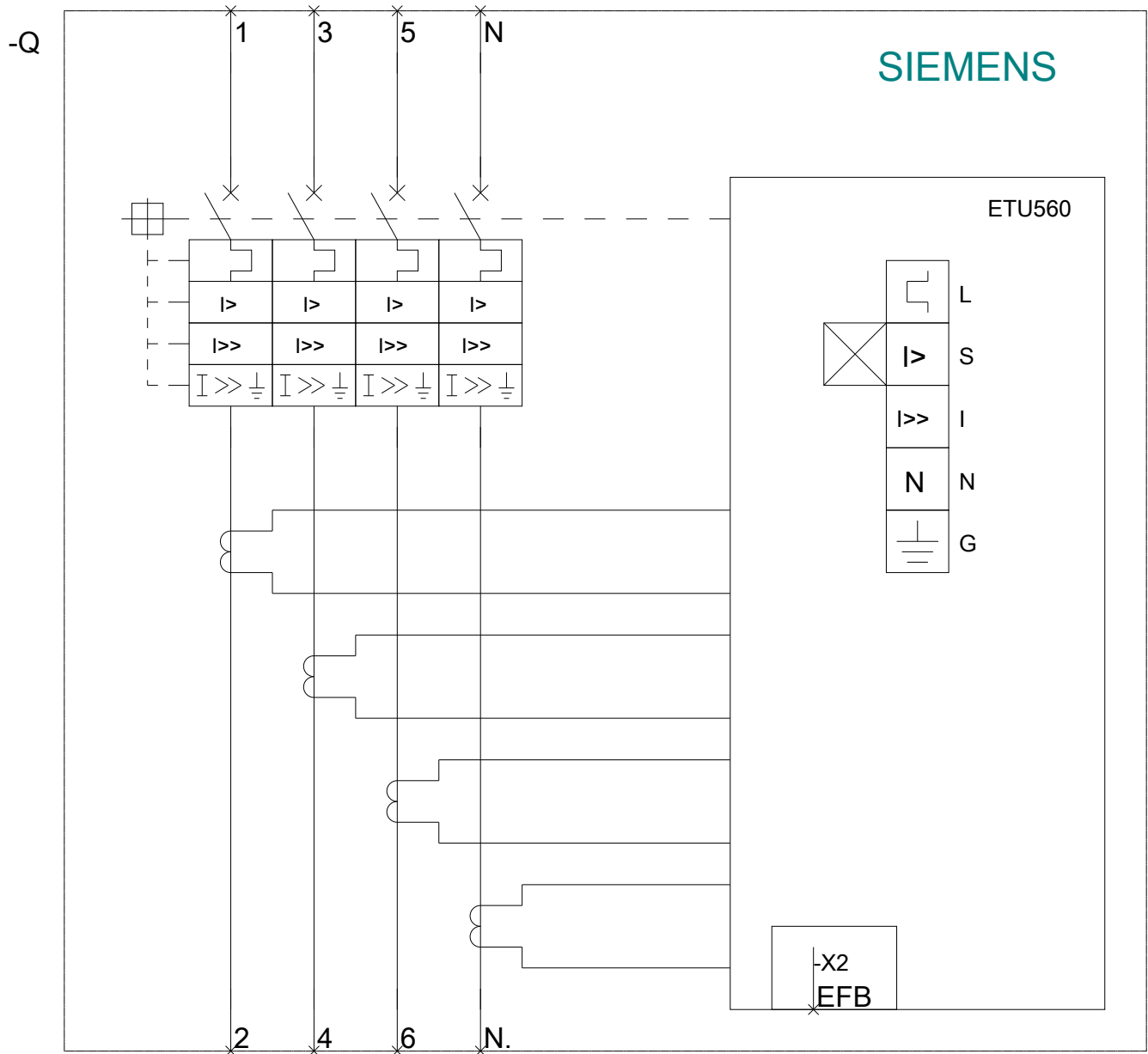
CAX-Online-Generator

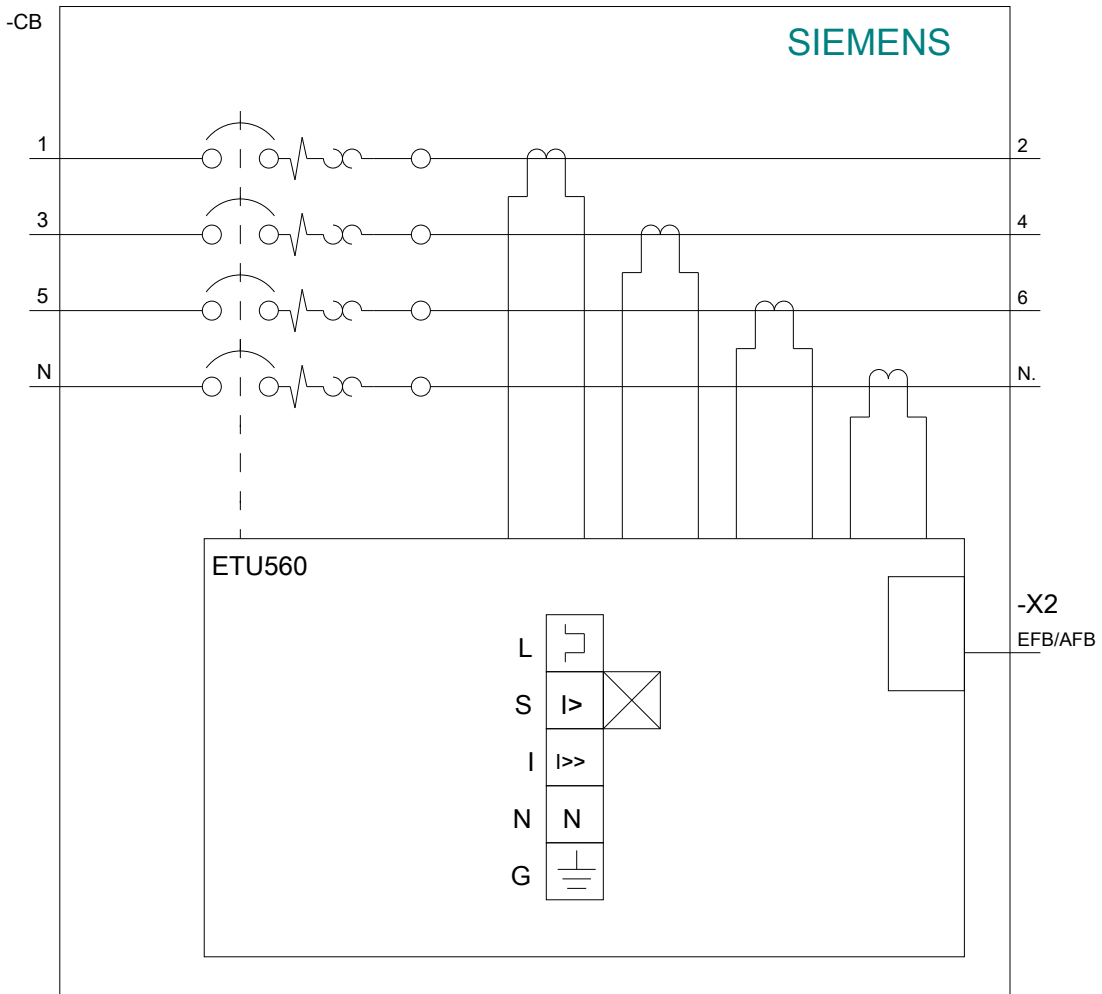
<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>







last modified:

08/05/2020